

FL 6500 AND 8500 FLUORESCENCE

CONSUMABLES AND ACCESSORIES



Introduction and Overview

Today's advanced and increasingly diverse Advanced Materials laboratories are facing new challenges on a daily basis – starting from raw materials right up to the finished product. PerkinElmer's comprehensive portfolio of analytical solutions is designed to give you the higher accuracy, sensitivity, and ease of use your laboratory demands for examining with confidence, the purity, composition, and performance of your polymers and compounds. What's more, a range of complementary services is available to keep your laboratory up and running, meeting the stringent requirements of a variety of environments and working practices. Better insights for better products. Choose PerkinElmer.

The FL 6500 and 8500 are industry-leading fluorescence spectrometers. You'll be confident in the results you produce with the high-energy pulsed Xenon light source that prevents photobleaching in the FL 6500, along with the FL 8500 system that offers a continuous-wave excitation source that is best for testing diluted or small samples.



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Lamps

Our Fluorescence Spectrometers use pulsed Xenon discharge lamps, which are reliable and stable and provide remarkable sensitivity with a peak intensity exceeding 1 KW. To maintain optimum stability and sensitivity of your instrument, installation of a new lamp by a PerkinElmer service engineer is recommended. Additionally, Xenon lamp quartz envelopes are under pressure, requiring eye protection and extreme caution in handling.



Xenon Pulse Lamp with Silencer (N4202020)

Continuous Wave Lamp Module

The continuous wave lamp module includes the 150W Xenon Continuous Wave lamp and bracket allowing for easy installation.

FL 8500	
Description	Part No.
Continuous Wave Lamp With Upper Bracket	N4202035
Continuous Wave Lamp With Upper Bracket and Reflection Mirror	N4202036

Xenon Pulse Lamp

The Xenon Pulse Lamp includes the power selectable Xenon Pulse lamp, bracket and silencer allowing for easy installation.

FL 6500	
Description	Part No.
Xenon Pulse Lamp with Silencer	N4202020

Fluorescence Cells

We produce a wide selection of fluorescence cells and cuvette materials to meet all your liquid sampling needs. Our cells are manufactured from various types of glass, and we offer you many options for spectral range so you can choose the one that best matches your intended usage.



Macro Cells (Pkg. 2)

Description	Light Path	Dimensions	Inside Width	Cell Volume	Windows	Part No.
Specialty Optical Glass	10 x 10 mm	45 (H) x 12.5 (W) x 12.5 (D) mm	10 mm	3.5 mL	4	B0631104
Quartz SUPRASIL® with PTFE Lid	10 x 10 mm	45 (H) x 12.5 (W) x 12.5 (D) mm	10 mm	3.5 mL	4	B0631107
Specialty Optical Glass with PTFE Stopper	10 x 10 mm	46 (H) x 12.5 (W) x 12.5 (D) mm	10 mm	3.5 mL	4	B0631110
Quartz SUPRASIL® with PTFE Stopper	10 x 10 mm	46 (H) x 12.5 (W) x 12.5 (D) mm	10 mm	3.5 mL	4	B0631113

Semi-Micro Cells (Pkg. 2)

Description	Light Path	Dimensions	Inside Width	Cell Volume	Windows	Part No.
Specialty Optical Glass with PTFE Lid	10 x 4 mm	45 (H) x 12.5 (W) x 12.5 (D) mm	4 mm	1.4 mL	4	B0631115
Quartz SUPRASIL® with PTFE Lid	10 x 4 mm	45 (H) x 12.5 (W) x 12.5 (D) mm	4 mm	1.4 mL	4	B0631116
Specialty Optical Glass with PTFE Stopper	10 x 4 mm	46 (H) x 12.5 (W) x 12.5 (D) mm	4 mm	1.4 mL	4	B0631117
Quartz SUPRASIL® with PTFE Stopper	10 x 4 mm	46 (H) x 12.5 (W) x 12.5 (D) mm	4 mm	1.4 mL	4	B0631118
Specialty Optical Glass with PTFE Lid	10 x 2 mm	45 (H) x 12.5 (W) x 12.5 (D) mm	2 mm	700 µL	4	B0631119

Fluorescence Cells *cont.*

Micro Cells (Pkg. 2)

Description	Light Path	Dimensions	Inside Width	Cell Volume	Windows	Part No.
Specialty Optical Glass with PTFE Lid	10 x 2 mm	45 (H) x 12.5 (W) x 12.5 (D) mm	2 mm	700 µL	4	B0631119
Quartz SUPRASIL® with PTFE Lid	10 x 2 mm	45 (H) x 12.5 (W) x 12.5 (D) mm	2 mm	700 µL	4	B0631120
Specialty Optical Glass with PTFE Stopper	10 x 2 mm	40 (H) x 12.5 (W) x 12.5 (D) mm	2 mm	700 µL	4	B0631121
Quartz SUPRASIL® with PTFE Stopper	10 x 2 mm	40 (H) x 12.5 (W) x 12.5 (D) mm	2 mm	700 µL	4	B0631122
Quartz SUPRASIL® with No Lid	5 x 5 mm	33.5 (H) x 7.5 (W) x 7.5 (D) mm	32.25 (H) x 5 (W) x 5 (D) mm	600 µL	5	B0631123
Quartz SUPRASIL® with No Lid	5 x 5 mm	46 (H) x 7.5 (W) x 7.5 (D) mm	38.75 (H) x 5 (W) x 5 (D) mm	850 µL	5	B0631142
Micro Cell Adapter (Qty 4)			2 mm			L2250139

Ultra-Micro Cells (Pkg. 1)

Description	Light Path	Aperture	Dimensions	Chamber Volume	Cell Volume	Windows	Part No.
Quartz SUPRASIL® with PTFE Stopper	10 x 2 mm	5 x 2 mm	45 (H) x 12.5 (W) x 12.5 (D) mm 15 mm Center Height	100 µL	120 µL	3	B0631124

Flow Cells (Pkg. 1)

Description	Cell Volume	Part No.
Flow Cell	440 µL	N4202039

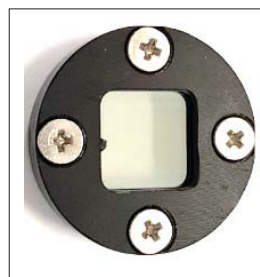
Filters

Filters for Fast Filter (N4201028)

Description	Part No.
FURA2 Filters: Excitation: 340/380 nm, Emission: 510 nm	N4201035
INDO1 Filters: Excitation: 350 nm, Emission: 400/480 nm	N4201036
Polarizer – Vis Range (Wire Grid Polarizer)	N4201037
Polarizer – UV-Vis Range (Wire Grid Polarizer)	N4201038

Filters for Filter Wheel (N4201028)

Description	Part No.
External 590 nm Emission Filter	N4201039
External 610 nm Emission Filter	N4201040
External 665 nm Emission Filter	N4201041
V-/H-Polarizer Emission Filter (UV-Vis)	N4201042
V-/H-Polarizer Emission Filter (Vis)	N4201043



Polarizer – UV-Vis and Vis Range (N4201037, N4201038)



FURA2 and INDO1 Filters (N4201035, N4201036)



External 590 and 610 nm Emission Filters (N4201039, N4201040)



V-/H-Polarizer Emission Filter, UV-Vis and Vis (N4201042, 4201043)



External 665 nm Emission Filter (N4201041)

Reference Materials and Test Samples

Luminescence Sample Blocks

Description	Part No.
Set of 6, including Europium for testing phosphorescence Includes: 1: Anthracene + Naphthalene (360+290/402+330 nm) 2: Ovalene (342/482 nm) 3: p-Terphenyl (295/338 nm) 4: Tetraphenyl-butadien (348/422 nm) 5: Europium (Phosphorescence, 335/613 nm) 6: Rhodamin B (562/573 nm)	52019600

Sealed Water Cuvette

Description	Part No.
The sealed 10 mm path length water cuvette contains high purity water for Raman band measurements.	L2251293

Ovalene Sample Block

Description	Part No.
The ovalene sample block is included in 52019600	CP364460

Well Plates

Well Plates for Microplate Reader (N4201024)

Description	Part No.
Optiplate 96-well plate with flat bottom, white. Pack of 50	6005290
Optiplate 96-well plate with flat bottom, white. Pack of 200	6005299
Optiplate 96-well plate with flat bottom, black. Pack of 50	6005270
Optiplate 96-well plate with flat bottom, black. Pack of 200	6005279



Optiplate 96 white well plate with flat bottom, Pkg. 50 (6005290) and Pkg. 200 (6005299)



Optiplate 96 black well plate with flat bottom, Pkg. 50 (6005270) and Pkg. 200 (6005279)

FL 6500 and FL 8500 Consumables

Quartz Cell with Low Profile Stopper

The quartz cell with low profile stopper is the only type of cell that can be used in the integrating sphere (N4201017) to avoid spillage or damage to the sample.

Description	Part No.
Quartz Cell with Low Profile Stopper	N4202030

Cell Holder Cap

The sample cell holder cap is used with the integrating sphere (N4201017).

Description	Part No.
Quartz Cell with Low Profile Stopper	N4202031

Stirring Bead

Stirring Beads are used for stirring accessories, like the Single Cell Holder Water-Jacketed with Stirrer (N4201012), Micro Cell Holder Water-Jacketed with Stirrer (N4201016), 4 Position Cell Changer Water-Jacketed Holder with Stirrer (N4201027), and Single Cell Peltier with Stirrer (N4201029).

Description	Part No.
Stirring Bead, Pkg. 5	N4202032

Teflon Reflector

The Teflon reflector is shipped standard with the FL 6500/8500 and is required for use with the instrument performance wavelength accuracy and reproducibility verification procedures.

Description	Part No.
Teflon Reflector	N4202033

Dust Filters

These 80 mm dust filters come in a package of 4 and are used with both the FL 6500 and FL 8500. For standard labs, we recommend changing every 6 months to ensure the health of the instrument and quality of the data.

Description	Part No.
Dust Filters	N4202034

Injection Port for BioKinetics

The injection port includes a 100 μ L syringe and can be used with the Single Cell Holder Water-Jacketed with Stirrer (N4201012), the Micro Cell Holder Water-Jacketed with Stirrer (N4201016), and the 4 Position Cell Changer Water-Jacketed Holder with Stirrer (N4201027).

Description	Part No.
Injection Port for BioKinetics	N4201033

FL 6500 and FL 8500 Consumables *cont.*

Sample Tubes

Description	Description	Part No.
Sample Tubes, 15 mL	Includes 500 polypropylene 15 mL tubes with red flat caps (Standard S10 tubes).	B0193233
Sample Tubes, 50 mL	Includes 500 polypropylene 50 mL tubes with flat caps (Standard S10 tubes).	B0193234



B0193233



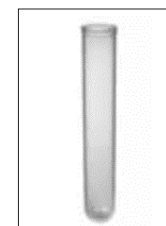
B0193234

Autosampler Supplies

Description	Description	Part No.
S10 Autosampler Sample Tray, 90 Locations	The 90 location autosampler sample tray has a 13 mm diameter and is used with 6 mL and 8 mL sample tubes.	B3140617
S10 Autosampler Sample Tray, 60 Location	The 60 location autosampler sample tray has a 16 mm diameter and is used with 15 mL sample tubes.	B3140618
S10 Autosampler Sample Tray, 21 Locations	The 21 location autosampler sample tray has a 30 mm diameter and is used with 50 mL sample tubes. Also includes 1 location for a wash tube.	B3140621
S10 Autosampler Sample Tray, 29 Locations	The 29 location auto sampler sample tray has a 16 mm diameter and is used with 15 mL sample tubes. Also includes 9 locations with a 30 mm diameter and 1 location for a wash tube.	B3001647
Sample Tube, 5 mL	Includes 500 polypropylene 5 mL tubes without screw caps.	B0193235
Sample Tube, 8 mL	Includes 1000 polypropylene 8 mL tubes without screw caps.	B0508901



S10 Autosampler Sample Tray



Sample Tube

FL 6500 and FL 8500 Accessories

Cell Holders

Single Cell Holder

The single cell holder is included with the FL 6500 and FL 8500, and can accommodate standard cell cuvettes with a size of 12.5 x 12.5 mm with a minimum volume of 900 µL.

Description	Part No.
Single Cell Holder	N4201010



Single Cell Holder (N4201010)

Single Cell Water-Jacketed Holder

The water-jacketed single cell holder enables temperature control using a water bath (not included) to keep samples at a desired temperature and accommodates standard cell cuvettes with a size of 12.5 x 12.5 mm with a minimum volume of 900 µL.

Description	Part No.
Single Cell Water-Jacketed Holder	N4201011

Single Cell Water-Jacketed Holder with Stirrer

The water-jacketed single cell holder with stirrer enables temperature control using a water bath (not included) to keep samples at a desired temperature and software controlled stirring of the solution with 4 stirrer settings.

Description	Part No.
Single Cell Water-Jacketed Holder with Stirrer	N4201012

Micro Cell Holder

This cell holder is used for micro volume cells that have outer dimensions of 12.5x12.5 mm and a volume as low as 10 µL.

Description	Part No.
Micro Cell Holder	N4201015

Micro Cell Water-Jacketed Holder with Stirrer

The water-jacketed micro cell holder with stirrer enables the user to analyze samples as low as 10 µL, and by adjusting the reduced volume cuvette to the beam, results in the best possible performance.

Description	Part No.
Micro Cell Water-Jacketed Holder with Stirrer	N4201016

Optional injecting port for BioKinetics (N4201033) and Stirring Bead, Pkg. 5 (N4202032) purchased separately.

FL 6500 and FL 8500 Accessories *cont.*

Sample Holders

Solid Sample Holder

The solid sample holder enables the measurement of high-concentrated liquids, powders, films, paper, and plastic samples. For solid samples, the maximum thickness is 17 mm and maximum length is 250 mm.

Description	Part No.
Solid Sample Holder	N4201013

Precision Cell for Powder Sample

The precision cell is designed with a quartz twist off cover which enables easy loading of powder or granular samples into the cell.

Description	Part No.
Precision Cell for Powder Sample	N4201032

Variable Angle Solid Sample Holder

The variable angle solid sample holder allows for a complete 360-degree rotation and enables the measurement of high-concentrated liquid, powders, films, paper, and plastic samples. For solid samples, the maximum thickness is 13 mm and the maximum length is 140 mm.

Description	Part No.
Variable Angle Solid Sample Holder	N4201014

Filters

Polarizer Vis Filter

The polarizer vis filter measures the polarization of samples and can be easily installed into the inner filter wheel of the FL 6500 and FL 8500. The useable wavelength range is 400 to 700 nm.

Description	Part No.
Polarizer Vis Filter	N4201022

Polarizer UV-Vis Filter

The polarizer uv-vis filter measures the polarization of samples with the filter wheel and can be easily installed into the inner filter wheel of the FL 6500 and FL 8500. The useable wavelength range is 300 to 800 nm.

Description	Part No.
Polarizer UV-Vis Filter	N4201019

Precision Polarizer Accessory

The precision polarizer accessory manually enables polarization and anisotropy measurements at multiple polarization angles and includes manually rotatable polarizers for excitation and emission. The useable wavelength range is 250 to 900 nm.

Description	Part No.
Precision Polarizer Accessory	N4201023

Manual Rapid Mixing Accessory

The manual rapid mixing accessory enables the monitoring of kinetics reactions in solutions by stopped-flow technique.

Description	Part No.
Manual Rapid Mixing Accessory	N4104014

Rapid Mixing Accessory with Pneumatic Drive

The pneumatic driven rapid mixing accessory enables the monitoring of kinetics reactions in solution by stopped-flow technique.

Description	Part No.
Rapid Mixing Accessory with Pneumatic Drive	N4104015

Requires the Rapid Mixing Accessory cover (N4201020).

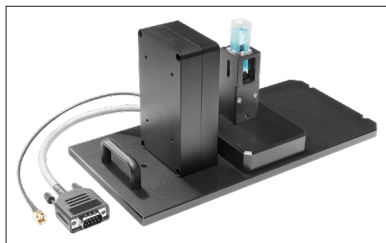


Precision Polarizer Accessory (N4201023)

FL 6500 and FL 8500 Accessories *cont.*

Absorbance Module

The absorbance module enables rapid absorbance measurements in the ultraviolet-visible region and has a range up to ~2.5 absorbance units. The module includes an integrated detector and stirrer with 4 settings.



Absorbance Module (N4201018)

Description	Part No.
Absorbance Module	N4201018

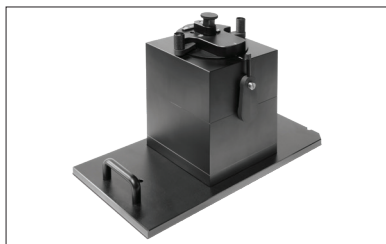
Fiber Optic Probe

The fiber optic probe offers a compact and convenient solution for the measurement of absorbance and fluorescence in a wide variety of sample medias.

Description	Part No.
Fiber Optic Probe	N4201021

Integrating Sphere

The integrating sphere enables the measurement of absolute quantum yield for liquid and powder samples. The integrating sphere is used with the Quartz Cell with Low Profile Stopper (N4202030).



Integrating Sphere (N4201017)

Description	Part No.
Integrating Sphere	N4201017

Cell Changers

4 Position Cell Changer

The 4-position cell changer accommodates up to 4 cells simultaneously and accommodates cells with a standard cuvette cell size of 12.5 x 12.5 mm and a minimum volume of 900 µL.

Description	Part No.
4 Position Cell Changer	N4201025

4 Position Water-Jacketed Cell Changer

The 4-position water-jacketed cell changer accommodates up to 4 cells simultaneously and enables temperature control through a water bath (not included) to maintain samples at the desired temperature. The cell changer can accommodate cells with a standard cuvette cell size of 12.5 x 12.5 mm and a minimum volume of 900 µL.

Description	Part No.
4 Position Water-Jacketed Cell Changer	N4201026
4 Position Water-Jacketed Cell Changer with Stirrer	N4201027

Peltier

Peltier 4 Cell Changer

The single cell Peltier with stirrer enables optimal temperature control with the stirring of samples and comes with four stirrer settings.

Description	Part No.
Peltier 4 Cell Changer	N4201029

Peltier Powder Sampling Accessory

The Peltier Powder Sampling Accessory enables temperature-controlled fluorescence measurements of powders.

Description	Part No.
Peltier Powder Sampling Accessory	N4201034

Peltier Temperature Controller (without Cell)

The Peltier Temperature Controller comes with an internal liquid cooling system, N₂ purge gas capability, magnetic stirrer control, and an emergency power off switch.

Description	Part No.
Peltier Temperature Controller (without Cell)	N4100040

FL 6500 and FL 8500 Accessories *cont.*

Miscellaneous

Microplate Reader Accessory

The microplate reader accessory enables measurements of samples in 96 or 384 well plates.

Description	Part No.
Microplate Reader Accessory	N4201024

Low Temperature Sampling Accessory

The low temperature sampling accessory enables flow control of liquid nitrogen through an automatic valve. Included with the sampling accessory are the Liquid Nitrogen Reservoir (2L) and Cuvette Cell.

Description	Part No.
Low Temperature Sampling Accessory	N4201045

Fast Filter Accessory

The fast filter accessory enables the analysis of rapid intracellular ion movements in and out of cells (signal transduction) using ratiometric fluorescent probes.

Description	Part No.
Fast Filter Accessory	N4201028

Auto Sipper

The auto sipper includes a front plate, FL flow cell, an Automatic Peristaltic Pump, a Pump Cartridge, tubing, and a Computer Interface Cable.

Description	Part No.
Auto Sipper	N4201031

For a complete listing of Consumables, please visit www.perkinelmer.com